

### **REMARKS**

Claims 1-5, 7-9, and 11-22 are currently pending in the application. Claim 1 has been amended. New claims 20-22 have been added. Applicant respectfully submits that no new matter has been added. Applicant respectfully requests reconsideration of the application in view of the foregoing amendments and the following remarks.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,974,862 to Fuhrmann ("Fuhrmann"). Independent claim 1 relates to an anti-buckling device for insertion into a thin-walled bendable fluid duct. Applicant respectfully submits that Fuhrmann fails to teach, suggest, or anticipate at least one of the distinguishing features of independent claim 1, namely, a plurality of ribs extending in a longitudinal direction of the anti-buckling device, the plurality of ribs having a height which varies in a transverse direction, the plurality of ribs having a maximum height near a center of the anti-buckling device. In addition, Fuhrmann fails to disclose wherein a cross-section of the anti-buckling device fills a cross-section of the duct in such a way that duct walls lie on a plurality of ribs at a buckling point but cannot penetrate into the grooves causing grooves to remain open and permeable for fluids when the anti-buckling device is bent.

Fuhrmann discloses a flexible conduit assembly for conduction of fluids. Fuhrmann further discloses a tube system with an outer corrugated tube and an inner flexible tube wherein the space between the tubes is available for the conduction of fluid. Fuhrmann discloses ribs or ridges in order to enlarge the flow space between a plurality of tubes. In contrast to claim 1, the ribs or ridges of Fuhrmann do not have a height which varies in *a transverse direction and having a maximum height near a center of the anti-buckling device*.

In addition, Fuhrmann fails to disclose bending of a conduit thereby causing restrictions or interruptions for the fluid conveyed. The conduit as shown in Fuhrmann is of a common kind having a flexible inner tubing and an outer protection tube that is corrugated helically or annularly in order to remain flexible. In contrast to claim 1, it appears to us that the tubing as disclosed in Fuhrmann is of a kind that does not require an anti-buckling device for insertion into a thin-walled fluid duct causing grooves to remain open and permeable for fluids when the anti-buckling device is bent as claimed. Applicant respectfully submits that

independent claim 1 distinguishes over Fuhrmann. Withdrawal of the rejection of independent claim 1 is respectfully requested.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,803,127 to Rains ("Rains"). Applicant respectfully submits that Rains fails to teach, suggest, or anticipate at least one of the distinguishing features of independent claim 1, namely, a plurality of ribs extending in a longitudinal direction of the anti-buckling device, the plurality of ribs having a height which varies in a transverse direction, the plurality of ribs having a maximum height near a center of the anti-buckling device. In addition, Rains fails to disclose wherein a cross-section of the anti-buckling device fills a cross-section of the duct in such a way that duct walls lie on a plurality of ribs at a buckling point but cannot penetrate into the grooves causing grooves to remain open and permeable for fluids when the anti-buckling device is bent.

Rains discloses a coaxial piping system for the transport of toxic and hazardous gases. Rains further discloses a non-flexible conduit assembly. Rains teaches a bent in the coaxial piping system. Rains discloses spacers adapted to allow purging gas to circulate. In contrast to claim 1, the spacers of Rains do not have a height which varies in *a transverse direction and having a maximum height near a center of the anti-buckling device*. Additionally, in Rains, there is no indication of a buckling point when bent. Since Rains fails to disclose a buckling point, Rains is silent with respect to the prevention of the same. Applicant respectfully submits that independent claim 1 distinguishes over Rains. Withdrawal of the rejection of independent claim 1 is respectfully requested.

Claims 1-3, 8, 11, 13, and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,420,016 to Nichols ("Nichols").

Independent claim 1 relates to an anti-buckling device for insertion into a thin-walled fluid duct. Applicant respectfully submits that Nichols fails to teach, suggest, or anticipate at least one of the distinguishing features of independent claim 1, namely, a plurality of ribs extending in a longitudinal direction of the anti-buckling device, the plurality of ribs having a height which varies in a transverse direction, the plurality of ribs having a maximum height near a center of the anti-buckling device.

Nichols discloses a spine for flexible aquarium air hoses including a plurality of rib members, each having at least three radially disposed ribs. Each adjacent pair of rib members are connected at the centre by a substantially flexible connecting member. A spine is inserted inside the flexible hose at areas where the hose is to be bent, thereby preventing kinking of the hose. In contrast to claim 1, the ribs as illustrated in Fig. 3 of Nicholas have a height which varies in a longitudinal direction but fails to disclose ribs having a height which varies in a transverse direction as claimed. Applicant respectfully submits that independent claim 1 distinguishes over Nichols. Withdrawal of the rejection of independent claim 1 is respectfully requested.

Dependent claims 2-3, 8, 11, 13, and 19 depend from and further restrict independent claim 1 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1, dependent claims 2-3, 8, 11, 13, and 19 distinguish over Nichols and are in condition for allowance. Withdrawal of the rejection of dependent claims 2-3, 8, 11, 13, and 19 is respectfully requested.

Claims 7, 9, and 15-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nichols. Dependent claims 7, 9, and 15-16 depend from and further restrict independent claim 1 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1, dependent claims 7, 9, and 15-16 distinguish over Nichols and are in condition for allowance. Withdrawal of the rejection of dependent claims 7, 9, and 15-16 is respectfully requested.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Nichols in view of U.S. Patent No. 4,452,279 to Atwell ("Atwell"). Dependent claim 12 depends from and further restricts independent claim 1 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1, dependent claim 12 distinguishes over Nichols. Atwell fails to cure the deficiencies of Nichols noted above. Withdrawal of the rejection of dependent claim 12 is respectfully requested.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Nichols in view of U.S. Patent No. 4,821,354 to Little ("Little"). Dependent claim 14 depends

from and further restricts independent claim 1 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1, dependent claim 14 distinguishes over Nichols. Little fails to cure the deficiencies of Nichols noted above. Withdrawal of the rejection of dependent claim 14 is respectfully requested.

Claims 4-5 and 17-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nichols in view of Rains. Dependent claims 4-5 and 17-18 depend from and further restrict independent claim 1 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1, dependent claims 4-5 and 17-18 distinguish over Nichols. Rains fails to cure the deficiencies of Nichols noted above. Withdrawal of the rejection of dependent claims 4-5 and 17-18 is respectfully requested.

New claim 20 depends from and further restricts independent claim 1 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1, dependent claim 20 distinguishes over the cited references and is in condition for allowance.

New claim 21 relates to an anti-buckling device for insertion into a thin-walled bendable fluid duct. Applicant respectfully submits that the cited references fail to disclose at least one of the distinguishing features of independent claim 21, namely, a plurality of ribs extending in a longitudinal direction of the anti-buckling device, wherein spaces between two adjacent ribs form grooves for positioning within the duct and a cross-section of the anti-buckling device being adapted to fill a cross-section of the duct in such a way that duct walls lie on the plurality of ribs at a buckling point but cannot penetrate into the grooves causing the grooves to remain open for fluid flow when the anti-buckling device is bent. In addition, the cited references fail to disclose wherein the two ribs of the plurality of ribs at a center of the anti-buckling device are shaped to accommodate at least one plastic pipe. For at least the reasons stated above, Applicant respectfully submits that claim 21 is in condition for allowance.

New claim 22 relates to an anti-buckling device for insertion into a thin-walled bendable fluid duct having an interior, longitudinally extending fluid flow region, the duct having a top inner surface wall area and a bottom inner surface wall area defining a first

maximum, internal dimension of the interior fluid flow region when the duct is not bent and a second maximum, internal dimension when the duct is bent. Applicant respectfully submits that the cited references fail to disclose at least one of the distinguishing features of independent claim 22, namely, a plurality of ribs oriented with and extending longitudinally along the interior fluid flow region of the anti-buckling device, the maximum height of the device being less than the first maximum internal dimension of the duct and the maximum height of the device being less than or equal to the second maximum internal dimension of the duct. In addition, the cited references fail to disclose wherein at the second maximum internal dimension, a cross-section of the anti-buckling device is adapted to fill a cross-section of the duct in such a way that at least one of the top inner surface wall area and the bottom inner surface wall area of the duct engages the plurality of ribs but cannot penetrate into the grooves causing the grooves to remain open and permeable for fluid flow. For at least the reasons stated above, Applicant respectfully submits that claim 22 is in condition for allowance.

New claims 23-24 depend from and further restrict independent claim 22 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 22, dependent claims 23-24 distinguish over the cited references and are in condition for allowance.

In view of the above amendment, Applicant respectfully submits that the present application is in condition for allowance. A Notice to that effect is respectfully requested.

Dated: February 8, 2008

Respectfully submitted,

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